

TIGER-VAC · II 1/3D EX H TC IIIC T200 C DC IP6X (EXTERNAL) -- EX H IIIC T200 C DA (INTERNAL) -- -5 C <= TA <= +37 C -- EN 17348 DT -- LCIE 15 ATEX 3061 -- IECEx LCIE 15.0048

Tiger-Vac C-10 EX DT (PRS-HEC)



The Tiger-Vac C-10 EX DT (PRS-HEC) is Tiger-Vac's Powder Recovery System with High Efficiency Cyclone -- specifically designed for 3D printer housekeeping and additive manufacturing (AM). Marked II 1/3D per EN 17348 DT with IECEx 3rd party (LCIE 15 ATEX 3061). The integrated cyclonic pre-separator can separate up to 98 % of the powder before it reaches the vacuum's main filter -- meaning longer filter life and that the recovered powder can be re-used if the application allows it. The AISI 304 detachable recovery tank (25 L) makes emptying fast and hygienic. The unit meets NFPA 484 paragraph 11.2.4.4.1 (Cyclone without filter media) and is ATEX/IECEx certified for conductive dust group IIIC. The single-phase Ametek by-pass motor (1200 W / 1.2 kW / 5 A) delivers 194 m³/h at 2504 mmH₂O. A BLSD motor is available as an option.

APPLICATIONS

- 3D printer powder recovery in metal AM and polymer AM (all PA12, PEEK, PEKK, TPU, metal powders)
- Build chamber emptying on SLS, MJF, DMLS and BJT printers
- Re-use of recovered powder where cyclone pre-separation allows re-use
- Pharma CMR powders in ATEX pilot plants with cyclone separation
- Industrial vacuuming applications where filter life and low maintenance are critical

Technical specifications

ATEX marking	II 1/3D Ex h tc IIIC T200 C Dc IP6X (External) -- Ex h IIIC T200 C Da (Internal) -- -5 C <= Ta <= +37 C -- EN 17348 DT -- LCIE 15 ATEX 3061 -- IECEx LCIE 15.0048
Internal / external zone	20 / 22
Motor type	1-faset Ametek by-pass universal-motor (1200 W / 1,2 kW / 5 A) -- T200 C overfladetemperatur
Airflow	194 m ³ /h
Vacuum	245 mbar (2504 mmH ₂ O)
Container	25 L
Sound pressure	72 dB(A)
Filter class	H class
Filter type	HEPA H14 (EN 1822, 99,99 % MPPS), individuelt fabriks-testet -- 4 x HEPA-filtre i kabinettet (212304B-HD, 215372, 211854) -- 20.253 cm ² filterflade
Primary filter	Hovedfilter PTFE/Epitropic polyester SD* m/stainless steel bands (218627 eller 215393-SD afhængigt af model)
Cleaning system	Cyklonisk pre-separator (HEC)
Collection system	Detachable container
Material	AISI 430 rustfri stål kabinet (AISI 304 tank som tilvalg på 4W EU-versionen)
IP class	IP6X
Power	1.2 kW
Current	5 A
Voltage	220-240 V / 50-60 Hz / 1~
Inlet	Diameter 50 mm
Dimensions (L x W x H)	640 x 1020 x 1240 mm

Questions and answers

What does II 1/3D mean on this machine?

II 1/3D means category 1 internally and category 3 externally -- the highest protection level (Da) inside the collection tank and the lowest on the outer housing (Dc). In practice: the unit can recover from Zone 20 (dust continuously present) even though the powerhead itself sits in Zone 22 (dust rarely present). That is the typical ATEX housekeeping configuration in process production -- recovery happens at a hazardous point while the operator stays in the less hazardous area.

What motor is fitted?

The Tiger-Vac C-7 EX (4W) delivers 1200 W / 1.2 kW / 5 A with a single-phase Ametek by-pass universal motor. Surface temperature is T200 C. The BLSD (brushless) version is available as an option for extended motor life and T85 C surface temperature.

What is the HEPA H14 setup on this model?

Every unit is supplied with 4 individually factory-tested HEPA H14 filters in the housing (212304B-HD as primary HEPA, 215372 and 211854 as tertiary). Total filter area is 20,253 cm² -- about 2 m². The class is H14 per EN 1822, equivalent to 99.995 % MPPS (Most Penetrating Particle Size). That is the requirement EN 17348 DT places on ATEX vacuums for combustible dust including asbestos, lead and pharma CMR substances.

Can it pick up liquids?

No. The entire C series is certified EN 17348 DT -- dry recovery only. For wet/dry recovery in Zone 20/22, a dedicated WD model must be used, such as the CD-63L EX (W&D;) variants. For liquid recovery in ATEX Kombi zones (II 2GD), see the ATEX-12A (4W) or (2+2W).

Contact and advisory

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